

## REMARKS

This Amendment is submitted in response to the non-final Office Action mailed on March 25, 2010. A Petition for a three month extension of time is submitted herewith. The Director is authorized to charge \$1,110.00 for the Petition for a three month extension of time any other fees that may be required, or to credit any overpayment to Deposit Account No. 02-1818. If such a withdrawal is made, please indicate the Attorney Docket No. 3712036-00734 on the account statement.

Claims 15-21 are pending. Claims 1-14 were previously canceled without prejudice or disclaimer. In the Office Action, Claim 20 is objected to. Claims 15-17 are allowed. Claims 18 and 21 are rejected under 35 U.S.C. §112. Claims 18 and 21 are rejected under 35 U.S.C. §102. Claim 19 is rejected under 35 U.S.C. §103. In response, Applicants have amended Claim 21, canceled Claims 18-20 without prejudice or disclaimer and added Claim 22. Neither the amendments nor the newly added claim adds new matter. The amendments and newly added claim are supported in the specification at, for example, page 7, lines 28-33; and the originally filed claims. For at least the reasons set forth below, Applicants respectfully submit that the rejections should be reconsidered and withdrawn.

In the Office Action, the Patent Office states that Claims 15-17 are allowed. The Patent Office also states that Claims 20 is objected to but would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. Accordingly, Applicants have newly added Claim 22, which includes the subject matter of previous Claims 19 and 20. Accordingly, Applicants respectfully submit that newly added Claim 22 is novel and nonobvious in view of the cited references and is in position for allowance.

In the Office Action, Claims 18 and 21 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Patent Office states that "Claim 18 recites a 'non-flexible plastic bag,' which allegedly implies flexibility. The Patent Office also states that Claim 21 recites two different size ranges of the bubble, which is allegedly confusing. See, Office Action, page 4, line 19-page 5, line 3. Applicants note that Claim 18 has been canceled and, as such, the definiteness rejection against same is now rendered moot.

The standard for determining whether the definitiveness requirement is met under 35 U.S.C. § 112, ¶ 2 is “whether those skilled in the art would understand what is claimed when the claim is read in light of the Specification.” *Orthokinetics Inc. v. Safety Travel Chairs Inc.*, 1 U.S.P.Q. 2d 1081-1088 (Fed. Cir. 1986). “If the claims, read in light of the Specification, reasonably apprise those skilled in the art both of the utilization and scope of the invention, and if the language is as precise as the subject matter permits, the Courts can demand no more.” *North American Vaccine Inc. v American Cyanamid Co.*, 28 U.S.P.Q. 2d 1333, 1339 (Fed. Cir. 1993). By statute, 35 U.S.C. 112, Congress has placed no limitations on how an applicant claims his invention, so long as the specification concludes with claims which particularly point out and distinctly claim that invention.” *In re Pilkington*, 162 U.S.P.Q. 145, 148 (C.C.P.A. 1996).

Currently amended independent Claim 21 recites, in part, bioreactors comprising at least one stationary tank and at least one means for introducing single large gas bubbles at a bottom of the vessel, the single large bubble width from 60% to 99% of the tank width. The amendment does not add new matter and is supported in the specification at, for example, page 7, lines 28-33. Since independent Claim 21 no longer recites two different size ranges of the bubble, Applicants respectfully submit that Claim 21 fully complies with the requirements of 35 U.S.C. §112, second paragraph.

For at least the above-mentioned reasons, Applicants respectfully submit that Claims 18 and 21 satisfy the definiteness requirements under 35 U.S.C. §112, second paragraph.

Accordingly, Applicants respectfully request that the rejection of Claims 18 and 21 under 35 U.S.C. §112, second paragraph, be reconsidered and withdrawn.

In the Office Action, Claims 18 and 21 are rejected under 35 U.S.C. §102(b) as being anticipated by WO 85/03458 to Parks (“Parks”). Applicants respectfully submit that *Parks* is deficient with respect to the present claims. Applicants also note that Claim 18 has been canceled and, as such, the anticipation rejection against same is now rendered moot.

Currently amended independent Claim 21 recites, in part, bioreactors comprising at least one stationary tank and at least one means for introducing single large gas bubbles at a bottom of the vessel, the single large bubble width from 60% to 99% of the tank width. The amendment does not add new matter and is supported in the specification at, for example, page 7, lines 28-

33. In contrast, Applicants submit that *Parks* fails to disclose or suggest each and every element of the present claims.

For example, *Parks* fails to disclose or suggest bioreactors comprising at least one stationary tank and at least one means for introducing single large gas bubbles at a bottom of the vessel, the single large bubble width from 60% to 99% of the tank width as required, in part, by currently amended independent Claim 21. Instead, *Parks* is entirely directed to a mixing and blending system in which pulsed air or gas bubbles of predetermined variable size and frequency are injected into a tank. See, *Parks*, Abstract. *Parks* merely discloses that “[t]he cross-sectional area across the largest part of the spherical segment bubble is on the order of 4 to 6 times the cross-sectional area of a round bubble of the same volume.” See, *Parks*, page 6, lines 31-34. As such, *Parks* fails to disclose or suggest at least one means for introducing single large gas bubbles at a bottom of the vessel, the single large bubble width from 60% to 99% of the tank width as required, in part, by currently amended independent Claim 21.

Further, anticipation is a factual determination that “requires the presence in a single prior art disclosure of each and every element of a claimed invention.” *Lewmar Marine, Inc. v. Barient, Inc.*, 827 F.2d 744, 747 (Fed. Cir. 1987) (emphasis added). Federal Circuit decisions have repeatedly emphasized the notion that anticipation cannot be found where less than all elements of a claimed invention are set forth in a reference. See, e.g., *Transclean Corp. v. Bridgewood Services, Inc.*, 290 F.3d 1364, 1370 (Fed. Cir. 2002). As such, a reference must clearly disclose each and every limitation of the claimed invention before anticipation may be found. Indeed, the Patent Office must be able to specifically identify the disclosure of each and every limitation of the claimed invention before anticipation may be found. Because *Parks* fails to disclose or suggest each and every element of the present claims, Applicants submit that *Parks* cannot anticipate the present claims.

For at least the above-mentioned reasons, Applicants respectfully submit that *Parks* fails to disclose or suggest each and every element of the present claims.

Accordingly, Applicants respectfully request that the rejection of Claims 18 and 21 under 35 U.S.C. §102(b) as being anticipated by *Parks* be reconsidered and withdrawn.

In the Office Action, Claim 19 is rejected under 35 U.S.C. §103(a) as being unpatentable over *Parks*. Applicants note that Claim 19 has been canceled and, as such, the obviousness rejection against same is now rendered moot.

Accordingly, Applicants respectfully request that the rejection of Claim 19 under 35 U.S.C. §103(a) be reconsidered and withdrawn.

For the foregoing reasons, Applicants respectfully request reconsideration of the above-identified patent application and earnestly solicit an early allowance of same. In the event there remains any impediment to allowance of the claims which could be clarified in a telephonic interview, the Examiner is respectfully requested to initiate such an interview with the undersigned.

Respectfully submitted,

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BY \_\_\_\_\_

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